DCX3000 3.0kW, 36/48VDC Portable Generator Quick Guide

The following instructions are intended to supplement the DCX3000 Operator's Manual. Read and adhere to all safety instructions listed in the Operator's Manual (Alpha P/N 041-028-B0) and this document. If you have any questions regarding safe operation of the generator, consult the Operator's Manual or contact Alpha Technical Support.

WARNING!

Do not *make or break* any connections between the power supply battery pack and generator while the generator is running. Turn the generator off before disconnecting any cables or equipment.

CAUTION!

Always check the engine oil level prior to operating the generator. Failure to do so could lead to irreparable damage to the engine.

CAUTION!

Only use 86 octane fuel or higher and no more than 10% Ethanol or 5% Methanol by volume.

1.0 Connecting Generator

1. Open the maintenance cover (see Figure 1-1).
2. Using the DC voltage selector switch, select either 36V or 48V (see Figure 1-1).
3. Close the maintenance cover.
4. Connect the power cord of the UPS to the DC output coupler, ensuring there is no gap (see Figure 1-2).

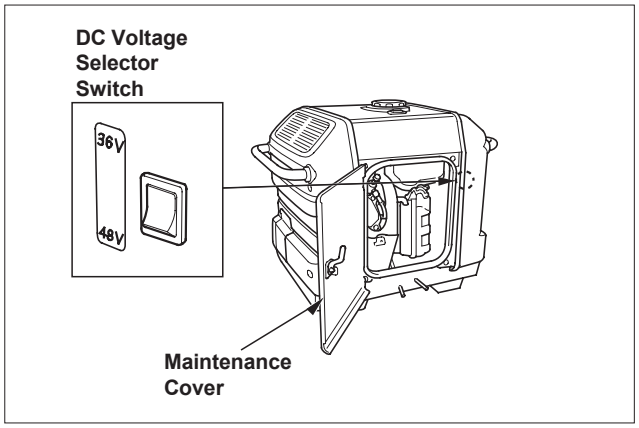

Figure 1-1, DC Voltage Selector Switch location.

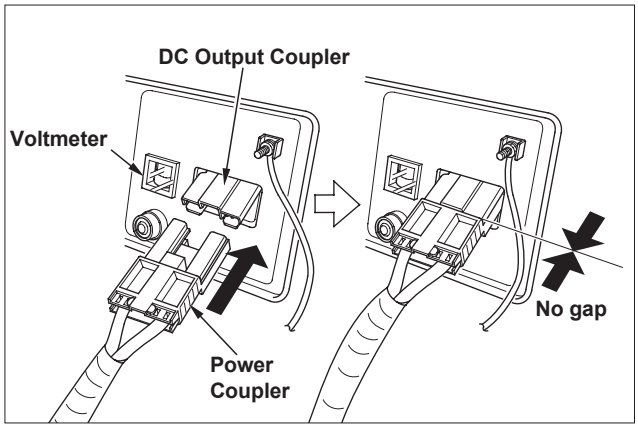

Figure 1-2, Connecting the UPS to the DC Output Coupler.

Note: When the UPS battery string is connected to the generator, the backlight in the Voltmeter is turned on and indicates the battery string voltage.

2.0 Operating Generator

1. Turn the Fuel Valve Lever to the ON position (see Figure 2-1).
2. Adjust Choke Knob (see Figure 2-1).
   - Pull the Choke Knob to the CLOSED position to start a cold engine.
   - Leave the Choke Knob in the OPEN position to restart a warm engine.

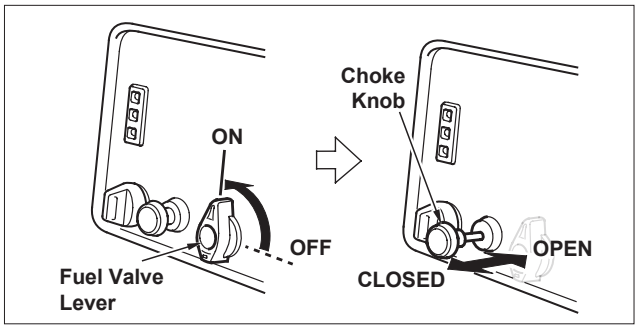

Figure 2-1, Fuel Valve Lever and Choke Knob operation.

3. Turn the Engine Switch to the ON position (see Figure 2-2).
4. Pull the Starter Grip until you feel resistance, then pull strongly in a straight line (see Figure 2-2).

   Note: Pulling the Starter Grip at sharp angle to the engine will prematurely wear out the cord. Do NOT let the starter grip snap back against the engine.

5. If the choke was CLOSED to start the engine, gradually push the choke in to the OPEN position as the engine warms up.

   Note: When the engine starts, DC output will begin charging the UPS battery string automatically and the output indicator (green) will go ON. If the UPS battery string voltage is too low, the DC output will turn off. At this time, the output indicator (green) will go OFF and the overload indicator (red) will go ON (see Table 2-1).

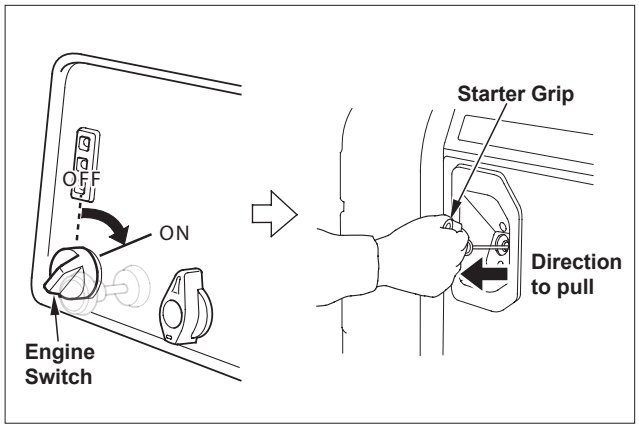

Figure 2-2, Engine Switch and Starter Grip operation.

Battery Voltage Alarm Indicators				
Battery Voltage[1]	Voltage Select Switch Position	Output Indicator (Green LED)	Overload Alarm (Red LED)	Forced Output[2]
0V to 2V	36V	OFF	OFF	Not Available
	48V	OFF	OFF	Not Available
2V to 27V	36V	OFF	**FLASHING**	**ENABLED**
	48V	OFF	**FLASHING**	**ENABLED**
27V to 42V	36V	**ON**	OFF	Not Available
	48V	OFF	**FLASHING**	**ENABLED**
42V to 55V	36V	OFF	**FLASHING**	Not Available
	48V	**ON**	OFF	Not Available
>56V	36V	OFF	**FLASHING**	Not Available[3]
	48V	OFF	**FLASHING**	Not Available[3]

(1)–All battery voltage measurements are ± 1V.
(2)–To enable forced output when the Overload Alarm LED is flashing, press the output button for at least 5 seconds. The Overload Alarm LED stops flashing. Release the output button, and then press it again for at least five seconds. The Output Indicator LED turns on steady, and power output begins. The operator may then release the output button.
(3)–Engine shuts down after 1 second.

Table 2-1, Battery Voltage alarm indicators.

Run Time Table	
Load	Run Time (Hours)
25%	20
80%	10
100%	7.2

Table 2-2, Load to approximate run time.

3.0 Maintenance Schedule

MAINTENANCE SCHEDULE						
REGULAR SERVICE PERIOD Note: Perform at every indicated month or operating hour interval, whichever comes first.		Each use	First month or 20 hrs.	Every 3 months or 50 hrs.	Every 6 months or 100 hrs.	Every year or 300 hrs.
Engine Oil	Check Level	O				
	Change		O		O	
Air Cleaner	Check	O				
	Clean			O[2]		
	Replace					O[1]
Canister	Check	Every 2 years (Replace if necessary)[3]				
Purge tube	Check	Every 2 years (Replace if necessary)[3]				
Charge tube	Check	Every 2 years (Replace if necessary)[3]				
Sediment Cup	Check				O	
Spark Plug	Check-adjust				O	
	Replace					O
Spark Arrester	Clean				O	
Valve Clearance	Check-adjust					O[3]
Combustion chamber	Clean					
Fuel tank and filter	Clean					O[3]
Fuel tube	Check	Every 2 years (Replace if necessary)[2]				

(1)–Replace the paper air filter element only.
(2)–Service more frequently when used in dusty areas.
(3)–These items should be serviced by an authorized AlphaGen dealer.
For commercial use, log hours of operation to determine proper maintenance intervals. Failure to follow this maintenance schedule could result in non-warrantable damage.

Table 2-3, Battery Voltage alarm indicators.

4.0 Engine Oil Recommendations

Oil affects performance and service life for the engine. Always use 4-stroke automotive detergent oil. The engine can hold .58 U.S. qt (.55 L) of oil.

SAE 10W-30 is recommended for general use. Other viscosities shown in the chart may be used when the average temperature in your area is with the recommended range (see Figure 4-1).

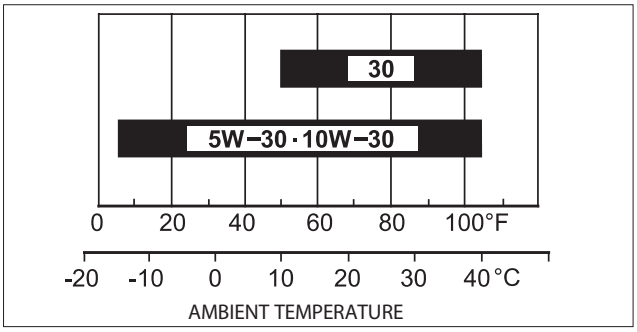

Figure 4-1, Oil recommendations for ambient temperature.

The SAE oil viscosity and service category are in the API label on the oil container. We recommend that you use API SERVICE category SJ or later (or equivalent) oil.

5.0 Changing Engine Oil

CAUTION!

Hot engine oil can BURN. The engine should be warm to the touch but not hot when changing the oil. Draining warm oil assists rapid and complete draining.

1. Open and remove the oil maintenance cover (see Figure 5-1).
2. Place a suitable container below the engine to catch the used oil, then remove the oil filler cap/dipstick. Using a 10mm wrench remove the drain plug and sealing washer (see Figure 5-1).
3. Allow the used oil to drain completely, then reinstall the drain plug and sealing washer. Tighten the plug securely.

Note: Improper disposal of engine oil can be harmful to the environment and may violate local and federal laws. Dispose of the used oil in accordance with all local, state and federal laws.

4. With the generator in a level position, fill to the outer edge of the oil filter hole with the recommended oil (see Figure 5-2).
5. Screw in the oil filler cap/dipstick securely.
6. Reinstall, close, and latch the oil maintenance cover.

Note: Always wash your hands after handling motor oil.

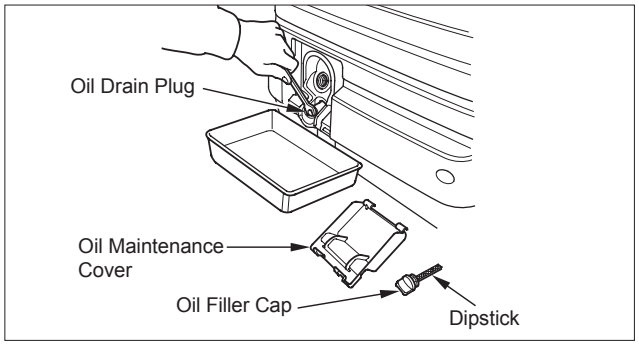

Figure 5-1, Draining oil.

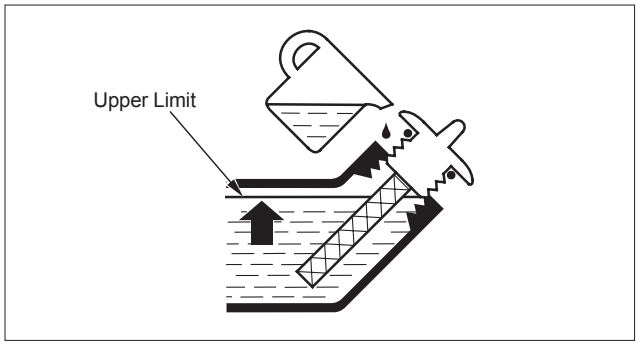

Figure 5-2, Filling oil limit.

6.0 Draining Fuel Tank and Carburetor

WARNING!

Gasoline is highly flammable and explosive. You can be burned or otherwise seriously injured improperly handling fuel. STOP the engine and let it fully cool before adding or draining fuel. Remove all sources of ignition, heat, and spark from the immediate area. Wipe up spills immediately.

1. Open the maintenance cover.
2. Place a suitable gasoline conatiner below the carburetor drain hose.
3. Loosen the carburetor drain screw and drain the gasoline from the carburetor (see Figure 6-1).
4. After all the fuel has drained into the container, tighten the drain screw securely.
5. Place an approved gasoline container below the sediment cup, and use a funnel to avoid spilling fuel (see Figure 6-2).

Note: The engine fuel tank can hold 3.5 U.S. gallons (13.3L) of fuel.

6. Remove the sediment cup, then move the Fuel Valve Lever to the ON position.
7. Allow the fuel to drain completely, then reinstall the sediment cup.
8. Close the maintenance cover.

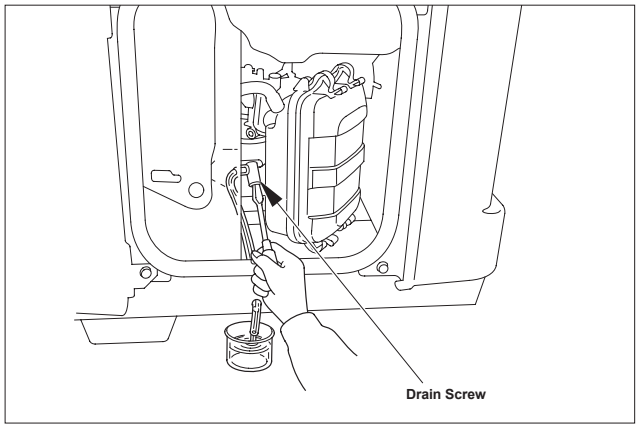

Figure 6-1, Draining carburetor.

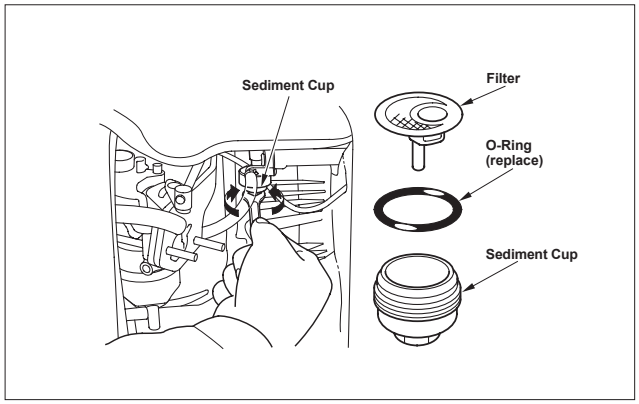

Figure 6-2, Draining/cleaning sediment cup.

7.0 Storing Generator

Proper storage preparation will help prevent corrosion damage and help extend the life of the fuel system. Prior to storage clean the generator entirely with a damp rag. Once dry, touch up damaged paint and lightly coat exposed metal surfaces with a quality rust inhibitor. To prevent fuel oxidizing, entirely drain the fuel system. If this is not possible, fill the fuel tank entirely to reduce the air in the tank (air hastens fuel oxidation) and ensure a quality gasoline stabilizer is used per the manufacturer's recommendations. It is also good practice to change the oil before long term storage.

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